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LETTER TO THE EDITOR

Blood homocysteine level in patients with oral lichen planus

To the Editor,

I read with interest the study by Chen et al.[1] The authors evaluated the association between oral lichen planus (OLP) and the levels of blood homocysteine, hemoglobin (Hb), iron, vitamin B12, and folic acid in 352 OLP patients and the same number of healthy controls. OLP patients had a significantly higher frequency of Hb, iron, or vitamin B12 deficiency and of abnormally elevated blood homocysteine level than healthy control participants. In addition, the mean homocysteine level in patients with major erosive OLP was significantly higher than that in patients with nonerosive OLP. The authors concluded that blood homocysteine level would be closely related to the severity of OLP. I have some queries on their study.

First, Saleh et al[2] observed that blood homocysteine, high-sensitive C-reactive protein, and plasma fibrinogen were significantly higher in 40 patients with lichen planus compared to those in 40 healthy controls. A meta-analysis showed that an elevated homocysteine level is an independent predictor of ischemic heart disease and stroke risk in healthy individuals,[3] and risk assessment of ischemic heart disease or stroke in patients with OLP, especially those with major erosive OLP, should be conducted in further studies.

Second, the prevalence of high blood homocysteine levels ($>$ 12.4 μmol/L) was 14.8% in patients with OLP compared to 3.1% in healthy control participants. By contrast, there was no significant difference in the mean value of homocysteine levels between patients and controls. I recommend that the authors adopt a nonparametric test such as the Mann—Whitney *U* test. In addition, there is a sex difference in blood Hb and iron levels, which is also affected by aging, and I also recommend conducting conditional logistic regression analysis to know the association of OLP with Hb, iron, vitamin B12, folic acid, and homocysteine simultaneously. Multivariate analysis would be effective to confirm the association between blood homocysteine levels and OLP, including information of its severity, as the same study group recently conducted.[4]

References

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